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EXAMINER

SMITH, JOSHUA Y

ART UNIT	PAPER NUMBER
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2619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/727,976

Applicant(s)

SHIM ET AL.

Examiner

Joshua Smith

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The amendment filed on 12/3/2007 has been entered.

- **Claims 1-29 are pending.**
- **Claim 29 is objected to.**
- **Claims 1-28 stand rejected.**

Claim Objections

1. **Claim 29** is objected to because of the following informalities: Claim 29 includes "at least one a serial driver". Claim 29 should include either "at least one serial driver" or "a serial driver". Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (Patent No.: US 7,142,512 B1) in view of Ueno (Patent No.: US 6,751,194 B1) and Johnson et al. (Pub. No.: US 2004/0008665 A1), hereafter referred to as Kobayashi, Ueno, and Johnson, respectively.

As for Claim 1, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as "a console" and "a control unit coupled to the console" in the instant invention).

Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101) (substantively the same as "a first" unit "coupled to the control unit" in the instant invention).

Kobayashi shows in line 3, column 6, and in FIG. 2, Sheet 2 of 19, of a control server (see item 102) connected to a meter through two links, one for receiving and one for transmitting (substantively the same as "with a first link and a second link" in the instant invention).

Kobayashi teaches in lines 12, 16-17, and 27-29, of a control server that can transmit a control command and can receive measured data (substantively the same as

"the first link ... for administrative messaging" and "the second link ... connection for status information" in the instant invention).

Kobayashi does not teach of IP-PBX, Ethernet connection, asynchronous connection. Ueno teaches providing instructions via a link in the form of messages that include a schedule request message, and Johnson teaches an IP-PBX, an Ethernet connection, and an asynchronous connection.

In the same field of endeavor, Ueno teaches in column 6, lines 57-60, a time stamp generating unit fetches a delay request value within the device from a packet attribute read from a header searching unit, and calculates an output time limit based on this value and a reception time limit, and, in column 6, lines 35-40, and in FIG. 1, Sheet 1 of 4, packets are input from input lines (items 10-1 to 10-n, FIG. 1) (provide instructions via a link in the form of messages that include a schedule request message). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ueno with the invention of Kobayashi since Ueno provides a packet multiplexer device that can be implemented into the network of Kobayashi to aid in enforcing a QoS and to allow adjustments in transmission delays of network devices by adjusting the maximum allowable forwarding delay of certain packets containing specific IP addresses, allowing the network of Kobayashi to both adjust and monitor network activity.

In the same field of endeavor, Johnson teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes

Ethernet/IP LAN and a IP PBX (an IP-PBX, an Ethernet connection, and an asynchronous connection). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

As for Claim 4, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as "a console" and "a control unit coupled to the console" in the instant invention).

Kobayashi teaches in lines 12, and 27-29, column 7, and in FIG. 6, Sheet 5 of 19, of a control server that transmits control commands through a control command transmitter (see item 603) (substantively the same as "a first interface ..., the first interface coupled to the control unit, the first interface ... for administrative messaging" in the instant invention).

Kobayashi teaches in lines 12, and 16-17, column 7, and in FIG. 6, Sheet 5 of 19, of a measured data receiver (see item 601) to receive measured data (substantively the same as "a second interface ..., the second interface coupled to the control unit, the second interface ... for status information" in the instant invention).

Kobayashi also teaches in column 6, lines 23-25, a server transmitting an acquisition request to a meter (a control unit to send a request message).

Kobayashi does not teach of an IP-PBX, an Ethernet connection, an asynchronous connection, and sending a message based upon a schedule of a message. Ueno teaches sending a message based upon a schedule of a message, and Johnson teaches an IP-PBX, an Ethernet connection, and an asynchronous connection.

In the same field of endeavor, Ueno teaches in column 6, lines 57-60, a time stamp generating unit fetches a delay request value within the device from a packet attribute read from a header searching unit, and calculates an output time limit based on this value and a reception time limit, and, in column 6, lines 35-40, and in FIG. 1, Sheet 1 of 4, packets are input from input lines (items 10-1 to 10-n, FIG. 1) (sending a message based upon a schedule of a message). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ueno with the invention of Kobayashi since Ueno provides a packet multiplexer device that can be implemented into the network of Kobayashi to aid in enforcing a QoS and to allow adjustments in transmission delays of network devices by adjusting the maximum allowable forwarding delay of certain packets containing specific IP addresses, allowing the network of Kobayashi to both adjust and monitor network activity.

In the same field of endeavor, Johnson teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes

Ethernet/IP LAN and a IP PBX (an IP-PBX, an Ethernet connection, and an asynchronous connection). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

As for Claim 2, as discussed in the rejection of Claim 1, Kobayashi teaches administrative messaging link and a status information link. Kobayashi further teaches in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, there may be more than one meter (see items 101), and, in lines 56-57, column 5, and in FIG. 2, Sheet 2 of 19, that each meter has two connections with the control server (substantively the same as "a second" unit "coupled to the control link with a third link and a fourth link" in the instant invention). Kobayashi does not teach of IP-PBX, Ethernet connection, asynchronous connection. Johnson teaches these limitations.

In the same field of endeavor, Johnson teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes Ethernet/IP LAN and a IP PBX (an IP-PBX, an Ethernet connection, and an asynchronous connection). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of

Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Ueno, Johnson, and further in view of Borresen et al. (Patent No.: US 7,032,129 B1), hereafter referred to as Borresen.

As for Claim 3, as discussed in the rejection of Claim 2, Kobayashi teaches a third link. Kobayashi fails to teach a UPS coupled to the control unit with a third link. Borresen teaches these limitations.

in the same field of endeavor, Borresen teaches in lines 9, and 14-15, column 4, of UPS (uninterruptible power supplies) having serial interfaces to a single board computer (substantively the same as "a UPS coupled to the control unit with a third link" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the invention of Borresen to the invention of Kobayashi since Borresen provides a way to connect newer network with legacy voice mail systems and to ensure connectivity through a fail-over support, giving reliable service to user of old systems.

Claim 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Ueno and Ogren.

As for Claim 5, Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101) (substantively the same as "a control unit" and "coupled to the control unit" in the instant invention).

Kobayashi also teaches in column 6, lines 23-25, a server transmitting an acquisition request to a meter (a control unit to send a request message). Kobayashi does not teach of an IP-PBX, an Ethernet driver coupled to the IP-PBX, or sending a message based upon a schedule of a message.

In the same field of endeavor, Ueno teaches in column 6, lines 57-60, a time stamp generating unit fetches a delay request value within the device from a packet attribute read from a header searching unit, and calculates an output time limit based on this value and a reception time limit, and, in column 6, lines 35-40, and in FIG. 1, Sheet 1 of 4, packets are input from input lines (items 10-1 to 10-n, FIG. 1) (sending a message based upon a schedule of a message). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ueno with the invention of Kobayashi since Ueno provides a packet multiplexer device that can be implemented into the network of Kobayashi to aid in enforcing a QoS and to allow adjustments in transmission delays of network devices by adjusting the maximum allowable forwarding delay of certain packets containing specific IP addresses, allowing the network of Kobayashi to both adjust and monitor network activity.

In the same field of endeavor, Ogren teaches in paragraphs [0038] and [0040], and in FIG. 1, Sheet 1 of 10, and in FIG. 2, Sheet 1 of 10, an IP PBX, and an Ethernet

driver in the network stack (item 114, FIG. 2), in the WARP (item 56, FIG. 1) in the same office network (item 12, FIG. 1) (an IP-PBX, an Ethernet driver coupled to the IP-PBX). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ogren with the invention of Kobayashi since Ogren provides components and systems for use with an IP and PBX network, allowing the system of Kobayashi to monitor both types of networks and expanding the capabilities of the system of Kobayashi.

As for Claim 7, as discussed in the rejection of Claim 5, Kobayashi teaches a control unit. Kobayashi fails to teach a IP-PBX, and a conversion module for converting between a first protocol and a second protocol. As discussed in the rejection of Claim 5, Ogren teaches an IP-PBX. Ogren further teaches a conversion module for converting between a first protocol and a second protocol.

Ogren further teaches in paragraph [0031], a gateway, where traffic destined for mobile devices from a PBX network, the PSTN and the PLMN is packetized at the gateway to the IP network for transmission over packet channels and then converted back to the wireless circuit format at the office network for delivery to the mobile devices over circuit channels (a conversion module for converting between a first protocol and a second protocol). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Ogren with the invention of Kobayashi since Ogren provides components and systems for use with an IP and PBX network,

allowing the system of Kobayashi to monitor both types of networks and expanding the capabilities of the system of Kobayashi.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Ueno and Ogren, and further in view of Clemens.

As for Claim 6, as discussed in the rejection of Claim 5, Kobayashi teaches a control unit. Kobayashi fails to teach a serial driver coupled to an IP-PBX. As discussed in the rejection of Claim 5, Ogren teaches a driver coupled to an IP-PBX. Clemens teaches a serial driver.

In the same field of endeavor, Clemens teaches in paragraph [0045], of "data sent using Ethernet driver", and also teaches in paragraph [0187] of an "Ethernet serial data link", implicitly teaching the Ethernet driver involves this serial data link (substantively the same as "control unit further includes a serial driver" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to adopt the invention of Clemens into the invention of Kobayashi since Clemens provides a system and method of efficiently, reliably, and economically transmitting and receiving audio and video data, allowing the system to provide improved services.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi, Ueno, Ogren, and further in view of Levac et al. (Patent Number: 6,034,970)

and Brown et al. (Patent No. 6,381,321 B1), hereafter referred to as Levac and Brown, respectively.

As for Claim 8, Kobayashi teaches a control unit. Kobayashi fails to teach a session controller coupled to the first Ethernet driver; a conversion module coupled to the session controller; and a management module coupled to the session controller and the conversion module, the session controller configured to determine whether a protocol in the IP-PBX matches a protocol in the management module, the session controller further configured to couple the first Ethernet driver to the management module through the conversion module, if the protocol in the IP-PBX does not match the protocol in the management module. As discussed in the rejection of Claim 5, Ogren teaches an IP-PBX. The remaining limitations are taught by Brown and Levac, as discussed below.

In the same field of endeavor, Brown teaches in lines 12-12, and 14-16, column 10, and in FIG. 4, Sheet 5 of 12, of a session manager module (see item 430) coupled to a connection manager module (see item 445) and a system manager module (see item 425) through the core services module interface (see item 315a) (substantively the same as "a session controller coupled to the first ... driver" and "a management module coupled to the session controller" and "management module" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Brown with the invention of Kobayashi since Brown provides a system for dynamic configurability, flexibility, and scalability of telecommunication resources, facilitating the improvement and expansion of the system of Kobayashi.

In the same field of endeavor, Levac shows in lines 45-57, column 9, and in FIG. 3, Sheet 3 of 5, of a protocol converter that receives a message and determines if the communication is a type compatible with communication device items 18a-n (see items 18a, 18b and 18n, FIG. 1, Sheet 1 of 5), and if the message is not compatible, the message is sent to the convert stage (see item 58) before it is sent to the submit stage (see item 60) (substantively the same as "session controller configured to determine whether a protocol ... matches a protocol in the ... module, the session controller further configured to couple the first ... driver to the ... module through the conversion module, if the protocol ... does not match the protocol in the ... module" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Levac with the invention of Kobayashi since Levac provides system for messages of many types to be received and displayed by different types of devices, allowing the system of Kobayashi to be flexible in conveying information to users, and Lavec provides a system in which messages received by a message server can be converted to a format appropriate for reception, processing, and display through certain user devices, such as a pager, fax machine, e-mail, telephone system, or wireless transmitter, allowing the control server in the system of Kobayashi to not only accumulate network information, but also to send this information to a user device for display if the user so wishes and to provide alerts to a user or users if certain network conditions occur.

As for Claim 9, as discussed in the rejection of Claim 8, Kobayashi teaches system. Kobayashi fails to teach a an Ethernet driver and a session controller is further configured to couple the first driver to the module without using the first conversion module, if the protocol does match the protocol in the module. Levac further teaches these limitations.

Levac further teaches in lines 48-57, column 9, and in FIG. 3, Sheet 3 of 5, if the messages do not need to be converted, the messages move directly from the data block (see items 56 and SERVER COMMAND) to the submit stage (see item 60) (substantively the same as "the session controller is further configured to couple the first ... driver to the ... module without using the first conversion module, if the protocol ... does match the protocol in the ... module" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Levac with the invention of Kobayashi since Levac provides system for messages of many types to be received and displayed by different types of devices, allowing the system of Kobayashi to be flexible in conveying information to users, and Lavec provides a system in which messages received by a message server can be converted to a format appropriate for reception, processing, and display through certain user devices, such as a pager, fax machine, e-mail, or telephone system, wireless transmitter, allowing the control server in the system of Kobayashi to not only accumulate network information, but also to send this information to a user device for display if the user so wishes and to provide alerts to a user or users if certain network conditions occur.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Ueno, Ogren, and further in view of Levac and Charcranoon (Pub. No.: US 2004/0105391 A1), hereafter referred to as Charcranoon.

As for Claim 10, as discussed in the rejection of Claim 5, Kobayashi teaches control unit. Kobayashi fails to teach a second driver, a filter, packet analysis module, and to monitor performance. Levac teaches a second driver coupled to the interface to the network, and Charcranoon teaches a filter coupled to the second ethernet, the filter configured to select packets, and a packet analysis module coupled to the filter, the packet analysis module configured to monitor performance.

However, in the same field of endeavor, Levac teaches in lines 33-35, column 10, and in FIG. 5, Sheet 5 of 5, of a system with more than one device driver for local area networks (see items 26b and 26) (substantively the same as "a second ... driver coupled to the interface to the network" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Levac with the invention of Kobayashi since Levac provides system for messages of many types to be received and displayed by different types of devices, allowing the system of Kobayashi to be flexible in conveying information to users, and Lavec provides a system in which messages received by a message server can be converted to a format appropriate for reception, processing, and display through certain user devices, such as a pager, fax machine, e-mail, or telephone system, wireless transmitter, allowing the control server in the system of Kobayashi to not only

accumulate network information, but also to send this information to a user device for display if the user so wishes and to provide alerts to a user or users if certain network conditions occur.

In the same field of endeavor, Charcranoon teaches in paragraph [0061], and in FIG. 7, Sheet 3 of 4, of a filter (see item 32) that performs groupings of packet headers received from a network according to an aggregate specification (substantively the same as "a filter coupled to the second ethernet, the filter configured to select packets" in the instant invention).

Charcranoon also teaches in paragraph [0068], and in FIG. 7, Sheet 3 of 4, of an analyzer (see item 92) that is connected to the output path of the filter and uses nodal packet loss records and line packet and line packet loss records to determine a per-hop, per aggregate, one-way, packet loss (substantively the same as "a packet analysis module coupled to the filter, the packet analysis module configured to monitor performance" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Charcranoon with the invention of Kobayashi since Charcranoon provides an architecture to obtain per-hop one-way packet loss and delay in multi-class service networks, adding a capability to the system of Kobayashi.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Ueno, Ogren, Levac, Charcranoon, and further in view of Corlett et al. (Pub. No.: US 2003/0023710 A1), hereafter referred to as Corlett.

As for Claim 11, as discussed in the rejection of Claim 5, Kobayashi teaches a system and packets. Kobayashi fails to teach packet selection based on type, session, origination IP address, and destination IP address. Corlett teaches these limitations.

In the same field of endeavor, Corlett teaches in paragraphs [0003] and [0039], of measurements of service performance with the measurements involving IP source, IP destination address, and a service type (substantively the same as “based at least one of type, session; origination IP address, and destination IP address” in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Corlett with the invention of Kobayashi since Corlett provides a system of measuring a network though extensive network metrics, adding to the capabilities of the system of Kobayashi.

As for Claim 12, as discussed in the rejection of Claim 5, Kobayashi teaches a system and packets. Kobayashi fails to teach monitoring based on packet loss, jitter, and latency. Corlett teaches these limitations.

In the same field of endeavor, Corlett teaches in paragraph [0009] measurements involving sequential packet loss, packet jitter, and one-way latency (substantively the same as “configured to monitor at least one of packet loss, jitter and latency” in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Corlett with the invention of Kobayashi since Corlett provides a system of measuring a network though extensive network metrics, adding to the capabilities of the system of Kobayashi.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Xu (Pub. No.: US 2005/0068898 A1), hereafter referred to as Xu.

As for Claim 13, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as “a console” and “a first control unit coupleable to the console” in the instant invention).

Although Kobayashi does not teach of multiple control servers coupleable to the console, Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101), showing that it is possible to have multiple units of one type (meters) to be connected to a single unit of another type (control server) (substantively the same as “a first control unit coupleable to the console” and “a second control unit coupleable to the console” in the instant invention).

Kobayashi also teaches in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, routers (item 103, FIG. 1) can be in the path connection between a control server (item 102, FIG. 1) and a meter (item 101, FIG. 1) (via a switch):

Kobayashi teaches in lines 12, 16-17, and 27-29, of a control server that can transmit a control command and can receive measured data (substantively the same as “to perform administrative functions” in the instant invention).

Kobayashi does not teach of a console selectively coupled to wither one of two control units. However, in the same field of endeavor, Xu teaches in paragraph [0024], of "In response to a control signal, the common point can be selectively connected to either the first connection point or to the second connection point" (substantively the same as "configured to be selectively coupled to one of the first ... unit and the second ... unit" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Xu with the invention of Kobayashi since Xu provides an architecture that efficiently connects switching circuits, allowing efficient use of resources in the system of Kobayashi.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Kalyanpur et al. (Patent No.: US 6,359,976 B1), hereafter referred to as Kalyanpur.

As for Claim 14, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as "a console" and "a first control unit coupled to the console" in the instant invention). Kobayashi does not teach of a control unit configured to aggregate performance data from other control units and allow access of the data to the console, and aggregate data being packet type, session data, origination data, or Ip address. Kalyanpur teaches these limitations.

In the same field of endeavor, Kalyanpur shows in lines 63-64, column 5, and in lines 38-39, 55-57, and 61-63, column 7, and in lines 12-14, column 15, and in FIG. 1, Sheet 1 of 4, of a system to track and aggregate performance statistics for a communications network, where multiple network monitors (see items 119-122) capture or detect signaling units sent between communication units and make a call or transaction record, which is then sent to the server (see item 124), which is connected to a work station (see item 126) that allows access to retrieve data of the server (substantively the same as "a third control unit coupled to the first control unit, the first control unit configured to aggregate performance data from the second and third control units, the console coupled to the third control unit for access to the aggregated performance data" in the instant invention).

Kalyanpur also teaches in column 6, lines 16-19, and in column 7, lines 47-50, statical reports for called, calling or translated number or for services, and monitoring messages from a particular transaction or call (aggregate data being session data or origination data). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Kalyanpur with the invention of Kobayashi since Kalyanpur provides an alternative method where network quality and activity is monitored, aspects of which can improve the capabilities of the system of Kobayashi.

Claim 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corlett et al. (Pub. No.: US 2003/0023710 A1) in view of Fiut et al. (Pub. No.: US 2003/0162539 A1), hereafter referred to as Corlett and Fiut, respectively.

As for Claim 15, Corlett teaches in paragraphs [0008], [0211], [0212], and [0213], of user alert notifications and several alarms of severity, set to trigger at thresholds progressively closer to the violation of a service level agreement, and where the alarm capabilities and general measurement capabilities allow grouping of measurement vectors to generate measurement solutions (substantively the same as “setting an alert threshold” and “measuring a performance parameter” and “determining whether the measured performance parameter exceeds the alert threshold” and “notifying an administrator” and “performing active testing” in the instant invention).

Corlett also teaches in paragraph [0018], a network metric system implements a CQOS protocol (QoS policy).

Corlett fails to teach measuring a performance parameter based upon historical information for predetermined portions of a network, and determine whether a measures performance parameter meet a minimum standard, and notifying an administrator if the minimum standard has not been met, and performing active testing if a minimum standard has not been met, and reporting results of the active testing as historical information, historical information including whether the minimal standard has been met, and continuing to monitor the historical information.

In the same field of endeavor, Fiut teaches in paragraph [0054], collected historical database for use in trending analysis to detect/predict potential problems at a base station of a communications network (measuring a performance parameter based upon historical information for predetermined portions of a network).

Fiut also teaches in paragraph [0053], a monitoring probe continually makes parametric measurements and compares measurements to preset thresholds for the parameters, and if a parameter's measurement drops below a specified minimum threshold, an alarm condition may be triggered for that parameter, the alarm condition and/or the actual parametric measurement(s) may be communicated in order to alert a user to such an alarm condition, and where if a watchdog measurement is reported back to RBMS, RBMS may, via an application program executing thereon, evaluate the received measurement, update the status of the measured parameter, and execute alarming conditions as appropriate (determine whether a measures performance parameter meet a minimum standard, and notifying an administrator if the minimum standard has not been met, and performing active testing if a minimum standard has not been met, and reporting results of the active testing as historical information, historical information including whether the minimal standard has been met, and continuing to monitor the historical information). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Fiut with the invention of Corlett since Fiut provides a system where a user can be alerted when a parameter drops below a minimum threshold and be provided with a historical record of network behavior as it violates the minimum threshold, which can be implemented in the system of Corlett to enhance its network metric system to provide users with detailed historical and up-to-date information and to transmit information to the user only when a policy violation occurs, enhancing the system of Corlett.

As for Claim 16, Corlett further teaches in paragraph [0009] measurements involving sequential packet loss, packet jitter, and one-way latency (substantively the same as “the performance parameter is at least one of packet loss, jitter, and latency” in the instant invention).

As for Claim 17, Corlett teaches in paragraph [0211], user alerts may be viewed through a user interface and may activate notification functions such as e-mail, paging, or transmission of SNMP traps (substantively the same as “notifying includes sending at least one of an email, a page, and a SNMP message” in the instant invention).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duxbury et al. (Patent Number: 5,604,896) in view of Puppa et al. (Patent Number: 5,778,003), hereafter referred to as Duxbury and Puppa, respectively.

As for Claim 18, Duxbury teaches in lines 61-67, column 2, and in lines 36-38, and 46-50, column 6, of a gateway comprising an interface module, script support library (SSL), and a set of UNIX shell scripts and a set of UNIX shell functions, and where the gateway can detect errors or a catastrophic failure within itself and can return values indicating errors and catastrophic failure where the gateway needs to be restarted (substantively the same as “determining a status of an access node to a network” and “rebooting an access card if the status of the access node is an error” and “an error” in the instant invention). Duxbury does not teach of notifying an administrator of the status and a loop-back condition.

However, in the same field of endeavor, Puppa teach in lines 33-34, column 1, and in lines 33-35, 41, column 2, of a method detecting a loopback condition in a trunk from a node, causing alarms on the T1 cards and out-of-service alarms are generated at the involved nodes, where a technician can repair the loopback problem (substantively the same as "notifying an administrator if the status is one of ... an alarm, and a loop-back condition" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Puppa with the invention of Duxbury since provides a method in which loop-back can be detected in T1 connections, which can be applied to components in the system of Duxbury.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duxbury in view of Puppa, and in further view of Corlett et al. (Pub. No.: US 2003/0023710 A1), hereafter referred to as Corlett.

As for Claim 19, the references as applied to Claim 18 teach the limitations except email, a page, and SNMP message. However, in the same field of endeavor, Corlett teaches in paragraph [0211], user alerts may be viewed through a user interface and may activate notification functions such as e-mail, paging, or transmission of SNMP traps (substantively the same as "notifying includes sending at least one of an email, a page, and a SNMP message" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Corlett with the invention of Duxbury since Corlett provides a system to monitor a network though

extensive network metrics, ensuring that the quality of service of Duxbury is monitored closely and a drop in quality will be alerted to a user.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Johnson and Liu et al. (Pub. No.: US 2004/0073817 A1), hereafter referred to as Liu.

As for Claim 20, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as “a console connected to a control unit” in the instant invention).

Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101) (substantively the same as a unit “coupled to the control unit” in the instant invention).

Kobayashi does not teach of IP-PBX, Ethernet connection, asynchronous connection, receiving a delay value from a user, reading a power status, and determining whether there is a loss of external power based on the power status; and selectively shutting down at least one resource after an amount of time provided by the delay value if it is determined that there is a loss of power. Johnson teaches an IP-PBX, an Ethernet connection, and an asynchronous connection, and Liu teaches receiving a delay value from a user, reading a power status, determining whether there is a loss of external power based on the power status, and selectively shutting down at

least one resource after an amount of time provided by the delay value if it is determined that there is a loss of power.

In the same field of endeavor, Johnson teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes Ethernet/IP LAN and a IP PBX (an IP-PBX, an Ethernet connection, and an asynchronous connection). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

In the same field of endeavor, Liu teaches in paragraph [0028], of a preset time delay is input by system administrators (substantively the same as "receiving a delay value from a user" in the instant invention).

Liu also teaches in paragraph [0030], of a UI controlling module used to search for current statuses of the power supply and UPSs (substantively the same as "reading a power status" in the instant invention).

Liu also teaches in paragraphs [0031] and [0032], of a monitoring device that queries to each primary UPSs and obtains operational states of the UPSs, which may be normal or malfunctioning and unusable, and if the number of usable primary UPSs exceeds the total number of standby UPSs, the monitoring device sends out a

shutdown instruction having the preset time delay to the electrically powered devices (substantively the same as “determining whether there is a loss of external power based on the power status; and selectively shutting down at least one resource after an amount of time provided by the delay value if it is determined that there is a loss of power” in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Liu with the invention of Kobayashi since Liu provides a system where a UPS can provide to network components power during power failures, providing power to the control server and monitors to allow the continued monitoring of network activity of users still able to access a network.

As for Claim 21, Kobayashi teaches a method. Kobayashi fails to teach reading the power status is based on status data transmitted from an uninterruptible power supply. Liu further teaches these limitations. Liu further teaches in paragraph [0031], operational states of UPSs are obtained from feedback messages sent by the primary UPSs (substantively the same as “reading the power status is based on status data transmitted from an uninterruptible power supply” in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Liu with the invention of Kobayashi since Liu provides a system where a UPS can provide to network components power during power failures, providing power to the control server and monitors to allow the continued monitoring of network activity of users still able to access a network.

As for Claim 22, as discussed in the rejection of Claim 20, Kobayashi teaches a method. Kobayashi fails to teach an IP-PBX. Johnson further teaches these limitations.

Johnson further teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes Ethernet/IP LAN and a IP PBX (an IP-PBX). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

As for Claim 23, as discussed in the rejection of Claim 20, Kobayashi teaches a method. Kobayashi fails to teach backing-up data if it is determined that a power fault condition is imminent. Liu further teaches these limitations. Liu further teaches in paragraph [0032], when the monitoring device sends out a shutdown instruction to the electrically powered devices, if there are programs being processed in the electrically powered devices, the in-process programs are saved and shut down (substantively the same as "backing-up data if it is determined that a power fault condition is imminent" in the instant invention). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Liu with the invention of Kobayashi

since Liu provides a system where a UPS can provide to network components power during power failures, providing power to the control server and monitors to allow the continued monitoring of network activity of users still able to access a network.

Claims 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Chen, and in further view of LeBlanc et al. (Patent Number 5,508,707), hereafter referred to as LeBlanc.

As for Claims 24 and 26, Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101) (substantively the same as "a control unit" and "coupled to the control unit" in the instant invention). Kobayashi does not teach of IP-PBX, plurality of ports, storing of geographic information, identification, extension, and telephone connected to port. Kobayashi does not teach of an IP-PBX. LeBlanc teaches a plurality of ports, storing of geographic information, identification, extension, and telephone connected to port, and Chen teaches IP-PBX.

However, in the same field of endeavor, LeBlanc teaches in line 6, column 16, a control unit is associated with a PBX (substantively the same as "a control unit" and "a IP-PBX coupled to the control unit" in the instant invention).

LeBlanc also teaches in lines 33-34, column 3, "a plurality of base stations or Radio Ports (RPs)" which "transmit radio signals to and receive radio signals from one or more subscriber wireless telephones" (substantively the same as "having a plurality

of ports” and “a telephone coupled to one of the plurality of ports” in the instant invention).

LeBlanc also teaches in lines 12-13, column 5, connection “to a Public Safety Answering Point (PSAP) via a defacto standard (substantively the same as “an interface to a PSAP updater” in the instant invention).

LeBlanc also teaches in lines 32-33, column 5, and lines 37-39, column 6, of “how a base station monitors the location of the mobile unit by cell site” and “measurements of the mobile unit’s signal strength which is detected by some number of neighboring base stations in order to calculate position”, implicitly teaching that the locations of base stations and cell sites are known by a cellular system (substantively the same as “configured to store geographic information for each of the plurality of ports” and “associate ... the geographic information for the telephone” in the instant invention).

LeBlanc also teaches in line 23, column 2, of a “unit’s identification or phone number” used by a cellular system to connect a call (substantively the same as “configured to store extension and identification information related to the telephone” and “associate extension, identification information,... for the telephone” in the instant invention).

LeBlanc also teaches in lines 1-3, column 16, “A control unit may automatically discover the addition/deletion or in/out change of a particular base station” (substantively the same as “configured to discover the one of the plurality of ports” in the instant invention).

LeBlanc also teaches in lines 18-20, column 4, a Terminal Mobility Data-store (TMD) which is operative to maintain data associated with terminals (substantively the same as "configured to store" and "associate ... information for the telephone" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of LeBlanc with the invention of Kobayashi since the method of LeBlanc will allow an efficient location determination of wireless users and expand of the system capabilities of Kobayashi by allowing the monitoring of wireless activities and facilitate scalability into wireless networks.

In the same field of endeavor, Chen teaches in lines 62-63, column 1, of an Internet Protocol Public Branch Exchange (IPPBX) (substantively the same as "IP-PBX" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Chen into the network of Kobayashi since Chen provides a method where a user can utilize sophisticated communication services without requiring special communications equipment.

As for Claim 25 and 27, as discussed in the rejections of Claims 24 and 25, Kobayashi teaches a system and a control unit. Kobayashi fails to teach configured to output the associated extension, identification information, and the geographic information for the telephone to the interface to the PSAP updater. LeBlanc further teaches these limitations.

LeBlanc further teaches in lines 11-14, column 5, providing "the caller's Automatic Location Identification (ALI) ... via a defacto standard. ALI is generally

accomplished by receiving the ANI, or Automatic Number Identification, during call setup to the PSAP" (substantively the same as "configured to output the associated extension, identification information, and the geographic information for the telephone to the interface to the PSAP updater" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of LeBlanc with the invention of Kobayashi since the method of LeBlanc will allow an efficient location determination of wireless users and expand of the system capabilities of Kobayashi by allowing the monitoring of wireless activities and facilitate scalability into wireless networks.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Johnson, Corlett, Duxbury, Liu, and LeBlanc.

As for Claim 28, Kobayashi teaches in lines 41-44, column 7, of a control server (see item 102, FIG. 1, Sheet 1 of 19) that receives from and transmits to applications through an application interface (see item AP and item 604, FIG. 6, Sheet 5 of 19) (substantively the same as "a console connected to a control unit" in the instant invention).

Kobayashi shows in lines 43-46, column 5, and in FIG. 1, Sheet 1 of 19, of a control server (see item 102) connected to meters (see items 101) (substantively the same as a unit "coupled to the control unit" in the instant invention).

Kobayashi does not teach of IP-PBX, Ethernet connection, asynchronous connection. Ueno teaches providing instructions via a link in the form of messages that

include a schedule request message, and Johnson teaches an IP-PBX, an Ethernet connection, and an asynchronous connection.

In the same field of endeavor, Johnson teaches in paragraph [0056], an ATM connection and an IP connection, and, in paragraph [0057], a Point-to-Point Protocol Internet over Ethernet tunnels, and, in paragraph [0093], a corporate network includes Ethernet/IP LAN and a IP PBX (an IP-PBX, an Ethernet connection, and an asynchronous connection). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Johnson with the invention of Kobayashi since Johnson provides a system where ATM, IP, and Ethernet components are implemented in a network, allowing users in the network of Kobayashi to access other network types and allow the monitoring of these traffic types, expanding the capabilities of the system of Kobayashi.

Corlett teaches in paragraphs [0008], [0211], [0212], and [0213], of user alert notifications and several alarms of severity, set to trigger at thresholds progressively closer to the violation of a service level agreement, and where the alarm capabilities and general measurement capabilities allow grouping of measurement vectors to generate measurement solutions (substantively the same as "monitoring performance data" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Corlett with the invention of Kobayashi since Corlett provides a system of measuring a network through extensive network metrics, adding to the capabilities of the system of Kobayashi.

Duxbury teaches in lines 61-67, column 2, and in lines 36-38, and 46-50, column 6, of a gateway comprising an interface module, script support library (SSL), and a set of UNIX shell scripts and a set of UNIX shell functions, and where the gateway can detect errors or a catastrophic failure within itself and can return values indicating errors and catastrophic failure where the gateway needs to be restarted (substantively the same as "monitoring an access node" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Duxbury with the invention of Corlett since Corlett provides a system to monitor a network through extensive network metrics, ensuring that the quality of service of Duxbury is monitored closely and a drop in quality will be alerted to a user.

Lui teaches in paragraph [0030], of a UI controlling module used to search for current statuses of the power supply and UPSs (substantively the same as "reading a power status" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of Lui with the invention of Corlett since Lui can expand on the capabilities of Corlett by providing a method for monitoring uninterruptible power sources to expand on the system of monitoring network performance metrics of Corlett.

LeBlanc also teaches in lines 1-3, column 16, "A control unit may automatically discover the addition/deletion or in/out change of a particular base station" (substantively the same as "performing a discovery process" in the instant invention). It would have been obvious to one skilled in the art at the time of the invention to combine the invention of LeBlanc with the invention of Corlett since the method of LeBlanc will

allow an efficient location determination of wireless users and expand on the system of monitoring network performance metrics of Corlett by allowing the monitoring of wireless activities and facilitate scalability into wireless networks.

Response to Arguments

I. Arguments for rejections made under *35 USC § 102*.

Applicant's arguments with respect to claims 15-17, 20, 21 and 23 have been considered but are moot in view of the new ground(s) of rejection.

II: Arguments for rejections made under *35 USC § 103*.

Applicant submits Kobayashi et al. is silent as to the use of a console, as a console and a control server are not substantively the same. Examiner respectfully disagrees. Control servers provide control over aspects of a network to a user, and Kobayashi et al. teaches in column 14, lines 16-18 and 44-48, and in FIG. 18, Sheet 14 of 19, a user interface unit (item 2107, FIG. 18) within a control server.

Applicant also submits that, with respect to the rejection of Claim 18, Duxbury in view of Puppa does not teach the use of an "access card". Examiner respectfully disagrees. Puppa teaches in column 2, lines 12-15 and 50-54, and in FIG. 1, Sheet 1 of 2, a Newbridge 3600 node (item 1, FIG. 1) that contains a T1 Line Card (item 2, FIG. 1), which is substantively the same as an access card.

Applicant also submits that the combination of the invention of Levac et al. with the invention of Kobayashi et al. is improper. Examiner respectfully disagrees. As

discussed and clarified above with respect to Claim 8 and the other relevant claims, Lavec provides a system in which messages received by a message server can be converted to a format appropriate for reception, processing, and display through certain user devices, such as a pager, fax machine, e-mail, telephone system, or wireless transmitter, allowing the control server in the system of Kobayashi to not only accumulate network information, but also to send this information to a user device for display if the user so wishes and to provide alerts to a user or users if certain network conditions occur.

Applicant's other arguments with respect to claims 1-14, 18, 19, 22, 24-27 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Smith whose telephone number is 571-270-1826. The examiner can normally be reached on Monday through Friday, 9:30 AM to 7:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1/30/2008


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